

Federal R&D Funding by Budget Function

Fiscal Years 1998-2000

An SRS Special Report

Division of Science Resources Studies
Directorate for Social, Behavioral, and Economic Sciences

National Science Foundation



October 1999

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Ronald L. Meeks, Project Officer

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NOTES TO THE READER

This annual report contains information on Federal funding of the research and development (R&D) components of agency programs, as proposed by the administration for fiscal year (FY) 2000. R&D data in this report are classified into the same Federal budget function categories used in the *Budget of the United States Government, Fiscal Year 2000*. Proposed FY 2000 funding levels are for budget authority (defined below), which is the basis for initial congressional action. In future *Budget Function* reports, these data will be revised to reflect congressional appropriation and actual program funding decisions. Detailed data are included on *preliminary* estimates for Federal funding of R&D in FY 1999 that reflect all past congressional actions, but may be revised, since at the time of report preparation, FY 1999 had not yet been completed. This report also includes detailed data (by subfunction) on actual budget authorizations of R&D by Federal agencies in FY 1998 and aggregate data (by broad function) on actual R&D budget authorizations in FY 1998 and earlier years.

Although the Federal budget discussed in this report has been available for several months, it is still useful to look at the budget numbers in a concise format. Publication of this report was delayed to allow a few agencies to revise certain detailed budget items presented in the text and tables. National Science Foundation (NSF) staff viewed this information as a critical part of the report.

REPORT ORGANIZATION

These notes introduce basic budget terms and concepts used in this report. The rest of the report is divided into three sections:

Research and Development in the 2000 Budget: A Brief Overview provides a brief overview of Federal Funding of R&D within the context of requested total Federal budget authority.

Federal R&D Budget Authority by Budget Function consists of five tables. Tables 1, 2, and 5 provide an overview of Federal R&D funding within the context of requested total Federal budget authority. Table 3 contains data on Federal R&D funding for national defense and civilian programs in current and constant 1992 dollars for FYs 1955-2000. Table 4 contains data on budget authority for basic research by budget function for FYs 1998-2000.

R&D by Specific Budget Function presents data on R&D activities conducted within each budget function. This section consists of 19 tables (tables 6 through 24) which provide a summary for FYs 1998-2000.

Historical Tables presents two historical data series: (1) Federal R&D funding by budget function for FYs 1955-99 (tables 25a through 25h) and (2) Federal funding of basic research for FYs 1978-99 (tables 26a through 26d).

DEFINITIONS

Research and Development

As used in this report, R&D refers to research—both basic and applied—and development activities in the sciences and engineering.

Research is systematic study directed toward fuller scientific knowledge or understanding of the subject studied. Research is classified as either basic or applied according to the objective of the sponsoring agency.

- In **basic research**, the objective of the sponsoring agency is to gain fuller knowledge or understanding of the fundamental aspects of phenomena and of observable facts without specific applications toward processes or products in mind.
- In **applied research**, the objective of the sponsoring agency is to gain knowledge or understanding necessary for determining means by which a recognized and specific need may be met.

Development is the systematic use of the knowledge or understanding gained from research directed toward the production of useful materials, devices, systems, or methods, including design, development, and improvement of prototypes and new processes. It excludes quality control, routine product testing, and production.

Funds for conducting R&D include those for personnel, program supervision, and administrative support directly associated with R&D activities. Expendable or movable equipment needed to conduct R&D—e.g., microscopes or spectrometers—is also included.

This report does not include data on R&D plant funds—i.e., funds for R&D facilities such as reactors, wind tunnels, or particle accelerators or for the construction, repair, or alteration of such facilities. Also excluded are all non-R&D activities performed within budget functions that conduct R&D and all functions in which no R&D is conducted.

Budget Authority, Obligations, and Outlays

The Federal R&D funding data presented here are, with a few noted exceptions, provided in budget authority. Budget authority is used because it is the initial budget parameter for congressional action on the President's proposed budget. Budget authority imposes a ceiling on obligations and outlays; obligations and outlays flow from budget authority.

- **Budget authority** is the primary source of legal authorization to enter into obligations that will result in outlays. Budget authority is most commonly granted in the form of appropriations by the congressional committees assigned to determine the budget for each function.
- **Obligations** represent the amounts for orders placed, contracts awarded, services received, and similar transactions during a given period, regardless of when the funds were appropriated and when the future payment of money is required.
- **Outlays** represent the amounts for checks issued and cash payments made during a given period, regardless of when the funds were appropriated or obligated.

BUDGET FUNCTIONS

All activities covered by the Federal budget, including R&D, are classified into 20 broad functional categories. The Federal budget total comprises funding for these 20 functions. An agency's activities are not necessarily included in only one function. Instead, the programs of one agency typically are distributed across functions, and each function often includes programs from multiple agencies. No overlap occurs between functions or

between the various agency programs within those functions. In a few cases, components of a major national effort are funded through multiple functions, such as the Human Genome mapping effort (health and energy).

Notably, each specific R&D activity is assigned to only one function area, consistent with the official codes used in budget documents, even though the R&D activity may address several functional concerns. For example, except for those of the Army Corps of Engineers, all R&D activities sponsored by the Department of Defense (DoD) are classified as defense, even though some activities have secondary objectives such as space or health. Moreover, only R&D funded by the Department of Health and Human Services and the Department of Labor is classified in the health function category. Yet some R&D funding, from at least three additional agencies—DoD and the Departments of Energy and Veterans Affairs—has a major health component.

The functional categories and definitions used in this report are the same as those used in the Federal budget, with one exception. R&D activities categorized as general science, space, and technology (function 250) are reported separately here. Subfunction 251 contains R&D activities for general science and basic research, and subfunction 252 contains R&D activities for space research and technology. Not all federally sponsored basic research is categorized in function 251, however; some basic research is included in the remaining 19 functional categories.

Five Federal budget functions—Medicare (function 570), social security (function 650), net interest (function 900), allowances (function 920), and undistributed offsetting receipts (function 950)—have no R&D components. Consequently, they are not discussed in this report, except where R&D is described as a proportion of total Federal budget authority.

The Agency/Function Crosswalk on page 4 lists—by name and function code—the 16 individual R&D functions funded by agencies.

DATA SOURCES

Within the overall Federal budget there is no separately identified R&D budget as such; nor are most appropriations for R&D so labeled except in the case of certain program areas, such as in defense, energy, health, and environment. Consequently, most funds for R&D are not line items in an agency's budget submission but are included within general program funding. To determine funding for Federal R&D, the Office of Management and Budget (OMB) requires agencies with annual R&D funding greater than \$10 million to submit data on their R&D programs as part of their annual budget submissions. Specifically, the agencies provide data—reported, in accordance with OMB Circular A-11, Max Schedule C, “Research and Development Activities”—on funding levels for basic research, applied research, development, R&D facilities, and R&D support to universities and colleges.

Data in this report represent agencies' best estimates of actual and proposed Federal funding for R&D collected during the period February 1 through April 30, 1999. These data are based primarily on information provided to OMB by 23 agencies and account for an estimated 99 percent of all federally sponsored R&D activities. Also incorporated in this report is R&D information that became available from the individual agencies after the administration's budget was prepared and reported in the *Budget of the United States Government*. Such information consists of agency budget justification documents submitted to Congress and supplemental, program-specific information obtained from agency budget and program staff through mid-April 1999. Therefore, budget numbers for individual activities, programs, or agencies may differ slightly from those published in the President's budget or agency budget documents.

AGENCY/FUNCTION CROSSWALK													
AGENCIES	FUNCTIONS												
	National Defense (050)	Health (550)	Space Research and Technology (252)	General Science (251)	Energy (270)	Transportation (400)	Natural Resources and Environment (300)	Agriculture (350)	Education, Training, Employment, and Social Services (500)	Veterans Benefits and Services (700)	International Affairs (150)	Commerce and Housing Credit (370)	Community and Regional Development (450)
Agency for International Development													
Corps of Engineers (Civil)													
Dept. of Agriculture													
Dept. of Commerce													
Dept. of Defense (Military)													
Dept. of Education													
Dept. of Energy													
Dept. of Health and Human Services													
Dept. of Housing and Urban Development													
Dept. of Justice													
Dept. of Labor													
Dept. of the Interior													
Dept. of State													
Dept. of the Treasury													
Dept. of Transportation													
Dept. of Veterans Affairs													
Environmental Protection Agency													
National Aeronautics and Space Adm.													
National Science Foundation													
Nuclear Regulatory Commission													
Smithsonian Institution													
Social Security Administration													
Tennessee Valley Authority													

SOURCE: Agencies' submissions to Office of Management and Budget, Circular No. A-11, Max Schedule C, "Research and Development Activities"; agency budget justification documents; and supplemental data obtained from the agencies' budget offices.

RESEARCH AND DEVELOPMENT IN THE 2000 BUDGET: A BRIEF OVERVIEW

INTRODUCTION

This report contains information on Federal proposed fiscal year (FY) 2000 budget authority for the research and development (R&D) components of agency programs. The data were submitted by Federal agencies to the Office of Management and Budget in early 1999. This report includes historical data not affected by current legislation and therefore can be used for tracking funding trends. The report also contains detailed data on Federal R&D authorizations not readily available from other sources. How actions by Congress and the Administration affect the outcome of R&D funding levels will become apparent in 2000-01.

TOTAL R&D

In the first half of 1999, the administration proposed a total budget authority of \$75.4 billion for all Federal R&D programs in its FY 2000 budget, two percent less than the preliminary FY 1999 R&D total of \$76.9 billion. After adjusting for expected inflation, R&D budget authority will drop four percent. Budget authority for R&D grew 4.5 percent between FY 1998 and FY 1999 (an increase of 3 percent in constant dollars).

The five largest budget functions with respect to R&D funding—national defense; health; space research and technology; general science; and natural resources and environment—together account for 91 percent of all proposed Federal R&D funding.

Among individual functions, the largest FY 2000 R&D decrease (\$2.7 billion) is slated for defense (budget function code 050) which includes military programs of the Department of Defense (DoD) and the atomic energy defense activities of the Department of Energy (DOE). A seven percent decrease in national defense R&D budget authority is proposed. With this reduction, national defense will account for half (\$37.7 billion) of the Federal R&D total. The defense share of Federal R&D budget authority has decreased from 63 percent in FY 1990 to a proposed 50 percent in FY 2000. For the first time in 20 years, the nondefense share of Federal R&D budget authority will match the defense share. DoD's FY 2000 military research, development, test, and evaluation (RDT&E) budget will account for 91 percent (\$34.4 billion) of the national defense R&D. R&D funding for

DOE's atomic energy defense activities accounts for 8 percent (\$2.9 billion) of proposed FY 2000 national defense R&D.

The nondefense share of Federal R&D budget authority has increased steadily, from 37 percent in FY 1990 to an estimated 50 percent in FY 2000. The President's budget contains a \$1.2 billion increase in total nondefense R&D budget authority, to \$37.7 billion. This level represents a three percent increase from estimated FY 1999 funding.

Among individual budget functions, health (budget function code 550) is slated for the largest FY 2000 R&D budget increase, \$345 million above the FY 1999 level and will constitute 21 percent (\$15.8 billion) of the Federal R&D budget authority. The bulk of the health account (\$15.1 billion) will be for National Institutes of Health (NIH) programs. All 18 NIH institutes are slated for increased R&D budgets, and total R&D funding for health activities at NIH is expected to increase by \$367 million, or 2.5 percent, in FY 2000. The National Cancer Institute is slated to get the largest portion (\$2.7 billion) of NIH R&D dollars, and three other units—the Office of AIDS Research; the National Heart, Lung, and Blood Institute; and the National Institute of General Medical Sciences—are each expected to receive more than \$1 billion.

The Administration proposed a two percent increase (up \$183 million to more than \$8 billion) in R&D budget authority for space research and technology activities (budget function code 252) which includes space programs of the National Aeronautics and Space Administration (NASA). The largest share of NASA's R&D activities include: the space station (34 percent of NASA's R&D activities); space science (30 percent); and earth science (19 percent). Space research and technology will likely account for 11 percent of the total Federal R&D budget authority in FY 2000.

The Administration has proposed that research funding for general science (budget function code 251) increase 4.5 percent, or more than \$200 million in FY 2000, to nearly \$5 billion. This budget function category includes general science and basic research programs of the National Science Foundation (NSF) and DOE. NSF will account for 54.5 percent of these dollars, with DOE contributing

the rest of the general science funding. NSF supports mathematical and physical sciences; geosciences; biological sciences; engineering; computer and information sciences; and social, behavioral, and economic sciences. DOE's major funded activities (each more than \$300 million) for general science R&D include support of basic energy sciences; high energy physics; biological and environmental research; and nuclear physics. General science is likely to account for more than six percent of the total Federal R&D budget authority.

National resources and environment R&D (budget function code 300) is budgeted at \$1.9 billion for FY 2000, up one percent from the FY 1999 level (but a 1-percent decrease in constant dollars). Within this function, Federal efforts focus on providing cleaner air and water, conserving natural resources, and cleaning up environmental

contamination. Five agencies provide support for R&D activities in natural resources and environment: the Environmental Protection Agency (EPA), which accounts for 27.5 percent of the funding in this area; the Department of the Interior (30 percent); the Department of Commerce (29 percent); the Department of Agriculture (USDA) (12 percent); and DoD's Army Corps of Engineers (nearly 2 percent). Natural resources and environment R&D would account for nearly 3 percent of the total Federal R&D budget authority.

Regarding the remaining 11 R&D budget functions, transportation (R&D budget at \$1.8 billion), agriculture (\$1.5 billion), and energy (\$1.3 billion) each account for about 2 percent of Federal funding of R&D. The remaining eight functions each account for less than one percent of the total FY 2000 proposed R&D budget authority.

FEDERAL R&D BUDGET AUTHORITY
BY BUDGET FUNCTION

Table 1. Federal R&D budget authority, by budget function: fiscal years 1998-2000

2000 rank	Budget function	1998 actual	1999 preliminary	2000 proposed	Percent change	
					1998-99	1999-2000
		[In millions of dollars]				
	Total.....	73,569	76,886	75,415	4.5	-1.9
1	National defense.....	39,823	40,387	37,710	1.4	-6.6
2	Health.....	13,576	15,479	15,824	14.0	2.2
3	Space research and technology.....	8,198	8,239	8,422	0.5	2.2
4	General science ¹	4,360	4,739	4,951	8.7	4.5
5	Natural resources and environment.....	1,855	1,928	1,944	3.9	0.8
6	Transportation.....	1,833	1,731	1,840	-5.6	6.3
7	Agriculture.....	1,249	1,352	1,522	8.2	12.6
8	Energy ¹	948	1,164	1,348	22.8	15.8
9	Veterans benefits and services.....	587	674	663	14.8	-1.6
10	Education, training, employment, and social services.....	444	457	491	2.9	7.4
11	Commerce and housing credit.....	398	401	448	0.8	11.7
12	International affairs.....	163	165	115	1.2	-30.3
13	Administration of justice.....	72	82	59	13.9	-28.0
14	Community and regional development.....	42	49	51	16.7	4.1
15	Income security.....	18	37	24	105.6	-35.1
16	General government.....	2	2	2	0.0	0.0

¹Beginning in FY 1998, a number of DOE programs were reclassified from energy (270) to general science (251).

NOTES: Because of rounding, components may not add to the totals shown. Percent change is derived from unrounded data.

SOURCE: Agencies' submissions to Office of Management and Budget, MAX Schedule C; agency budget justification documents; and supplemental data obtained from the agencies' budget offices.

**Table 2. Distribution of total Federal R&D budget authority,
by function: fiscal years 1998-2000**

[In percentages]

2000 rank	Budget function	1998 actual	1999 preliminary	2000 proposed
	Total.....	100.0	100.0	100.0
1	National defense.....	54.1	52.5	50.0
2	Health.....	18.5	20.1	21.0
3	Space research and technology.....	11.1	10.7	11.2
4	General science ¹	5.9	6.2	6.6
5	Natural resources and environment.....	2.5	2.5	2.6
6	Transportation.....	2.5	2.3	2.4
7	Agriculture.....	1.7	1.8	2.0
8	Energy ¹	1.3	1.5	1.8
9	Veterans benefits and services.....	0.8	0.9	0.9
10	Education, training, employment, and social services.....	0.6	0.6	0.7
11	Commerce and housing credit.....	0.5	0.5	0.6
12	International affairs.....	0.2	0.2	0.2
13	Administration of justice.....	0.1	0.1	0.1
14	Community and regional development.....	0.1	0.1	0.1
15	Income security.....	*	*	*
16	General government.....	*	*	*

¹Beginning in FY 1998, a number of DOE programs were reclassified from energy (270) to general science (251).

* = Less than one-tenth of one percent.

NOTE: Because of rounding, components may not add to totals.

SOURCE: Agencies' submissions to Office of Management and Budget, MAX Schedule C; agency budget justification documents; and supplemental data obtained from the agencies' budget offices.

**Table 3. Federally funded R&D for national defense and civilian functions:
fiscal years 1955-2000**

Page 1 of 2

Fiscal years	Current dollars			Constant 1992 dollars ¹			Percent of total	
	Total	National defense	Civilian functions	Total	National defense	Civilian functions	National defense	Civilian functions
	[In millions of dollars]							
1955.....	2,533	2,151	382	12,266	10,416	1,850	84.9	15.1
1956.....	2,988	2,535	453	14,081	11,946	2,135	84.8	15.2
1957.....	3,932	3,327	605	17,865	15,116	2,749	84.6	15.4
1958.....	4,570	3,801	769	20,239	16,833	3,406	83.2	16.8
1959.....	6,694	5,556	1,138	29,079	24,136	4,944	83.0	17.0
1960.....	7,552	6,107	1,445	32,510	26,289	6,220	80.9	19.1
1961.....	9,059	7,005	2,054	38,434	29,720	8,714	77.3	22.7
1962.....	10,290	7,238	3,052	43,163	30,361	12,802	70.3	29.7
1963.....	12,495	7,764	4,731	51,803	32,189	19,614	62.1	37.9
1964.....	14,225	7,829	6,396	58,180	32,020	26,160	55.0	45.0
1965.....	14,614	7,342	7,272	58,785	29,533	29,252	50.2	49.8
1966.....	15,320	7,536	7,784	60,244	29,634	30,610	49.2	50.8
1967.....	16,529	8,566	7,963	63,016	32,657	30,358	51.8	48.2
1968.....	15,921	8,275	7,646	58,469	30,389	28,079	52.0	48.0
1969.....	15,641	8,356	7,285	55,016	29,391	25,624	53.4	46.6
1970.....	15,339	7,981	7,358	51,250	26,666	24,584	52.0	48.0
1971.....	15,543	8,110	7,433	49,390	25,771	23,619	52.2	47.8
1972.....	16,496	8,902	7,594	50,033	27,000	23,033	54.0	46.0
1973.....	16,800	9,002	7,798	48,809	26,153	22,655	53.6	46.4
1974.....	17,410	9,016	8,394	47,169	24,427	22,742	51.8	48.2
1975.....	19,039	9,679	9,360	46,767	23,775	22,992	50.8	49.2
1976.....	20,780	10,430	10,350	47,606	23,895	23,711	50.2	49.8
1977.....	23,450	11,864	11,586	49,925	25,259	24,667	50.6	49.4
1978.....	25,976	12,899	13,077	51,663	25,654	26,008	49.7	50.3
1979.....	28,208	13,791	14,417	51,815	25,332	26,482	48.9	51.1
1980.....	29,739	14,946	14,793	50,167	25,213	24,954	50.3	49.7
1981.....	33,735	18,413	15,322	51,804	28,275	23,529	54.6	45.4
1982.....	36,115	22,070	14,045	51,800	31,655	20,145	61.1	38.9
1983.....	38,768	24,936	13,832	53,151	34,187	18,964	64.3	35.7
1984.....	44,214	29,287	14,927	58,361	38,658	19,703	66.2	33.8

See explanatory notes and SOURCE at end of table.

**Table 3. Federally funded R&D for national defense and civilian functions:
fiscal years 1955-2000**

Page 2 of 2

Fiscal years	Current dollars			Constant 1992 dollars ¹			Percent of total	
	Total	National defense	Civilian functions	Total	National defense	Civilian functions	National defense	Civilian functions
	[In millions of dollars]							
1985.....	49,887	33,698	16,189	63,656	42,999	20,657	67.5	32.5
1986.....	53,249	36,926	16,323	66,066	45,814	20,252	69.3	30.7
1987.....	57,069	39,152	17,917	68,816	47,211	21,605	68.6	31.4
1988.....	59,106	40,099	19,007	68,880	46,730	22,150	67.8	32.2
1989.....	62,115	40,665	21,450	69,449	45,466	23,983	65.5	34.5
1990.....	63,781	39,925	23,856	68,471	42,861	25,610	62.6	37.4
1991.....	65,898	39,328	26,570	67,831	40,482	27,349	59.7	40.3
1992.....	68,398	40,083	28,315	68,398	40,083	28,315	58.6	41.4
1993.....	69,884	41,249	28,635	68,087	40,188	27,898	59.0	41.0
1994.....	68,331	37,764	30,566	65,003	35,925	29,078	55.3	44.7
1995.....	68,791	37,204	31,587	63,903	34,560	29,343	54.1	45.9
1996.....	69,049	37,801	31,248	62,909	34,440	28,469	54.7	45.3
1997.....	71,653	39,591	32,062	64,073	35,403	28,670	55.3	44.7
1998.....	73,569	39,823	33,746	65,007	35,189	29,818	54.1	45.9
1999.....	76,886	40,387	36,499	67,067	35,230	31,838	52.5	47.5
2000.....	75,415	37,710	37,704	64,496	32,250	32,245	50.0	50.0

¹Calculated using fiscal year GDP implicit price deflators with 1992 as the base year.

NOTES: The national defense function includes Department of Defense's military activities and Department of Energy's atomic energy defense programs. Civilian functions include all other federally funded R&D activities. Data for 1955-77 are obligations. Data for 1978-98 are actual budget authority. Data for 1999 are preliminary estimates of budget authority. Data for 2000 are budget authority proposed by the administration.

SOURCE: Agencies' submissions to Office of Management and Budget, MAX Schedule C; agency budget justification documents; and supplemental data obtained from the agencies' budget offices.

Table 4. Federal budget authority for basic research, by budget function: fiscal years 1998-2000

2000 rank	Budget function	1998 actual	1999 preliminary	2000 proposed	Percent change	
					1998-99	1999-2000
		[In millions of dollars]				
	Total.....	15,523	17,287	18,101	11.4	4.7
4	National defense.....	1,067	1,158	1,152	8.6	-0.5
1	Health.....	7,356	8,429	8,590	14.6	1.9
3	Space research and technology.....	1,610	1,719	1,841	6.8	7.1
2	General science ¹	4,121	4,471	4,710	8.5	5.3
7	Natural resources and environment.....	145	169	175	16.1	3.5
6	Transportation.....	411	438	634	6.5	44.8
5	Agriculture.....	571	657	736	15.1	12.1
9	Energy ¹	34	36	46	5.1	27.4
11	Veterans benefits and services.....	23	20	19	-15.9	-1.7
8	Education, training, employment, and social services.....	133	135	144	1.5	6.7
10	Commerce and housing credit.....	35	36	38	2.9	6.5
13	International affairs.....	1	1	1	0.0	0.0
12	Administration of justice.....	16	18	15	12.5	-16.7
14	Community and regional development.....	0	0	0	NA	NA
15	Income security.....	0	0	0	NA	NA
16	General government.....	0	0	0	NA	NA

¹Beginning in FY 1998, a number of DOE programs were reclassified from energy (270) to general science (251).

KEY: NA = Not applicable

NOTES: Because of rounding, components may not add to the totals shown. Percent change is derived from unrounded data.
Budget function categories are arranged according to the total Federal funding of R&D for FY 2000 but are ranked according to the basic research component.

SOURCE: Agencies' submissions to Office of Management and Budget, MAX Schedule C; agency budget justification documents; and supplemental data obtained from the agencies' budget offices.

Table 5. Federal R&D budget authority as a percentage of each function's total budget authority: fiscal years 1998-2000

2000 rank	Budget function	1998 actual	1999 preliminary	2000 proposed
	All functions conducting R&D.....	8.0	7.9	7.6
3	National defense.....	14.7	14.6	13.4
5	Health.....	10.0	10.9	10.2
2	Space research and technology.....	66.5	66.1	67.3
1	General science ¹	76.8	74.3	73.1
6	Natural resources and environment.....	7.6	8.1	8.1
7	Transportation.....	4.0	3.4	3.4
4	Agriculture.....	9.8	5.5	10.8
16	Energy ^{1,2}	320.2	-375.4	-59.7
9	Veterans benefits and services.....	1.4	1.6	1.5
10	Education, training, employment, and social services.....	0.7	0.8	0.8
8	Commerce and housing credit.....	2.8	7.7	3.1
11	International affairs.....	1.1	0.4	0.7
13	Administration of justice.....	0.3	0.3	0.2
12	Community and regional development.....	0.4	0.5	0.6
15	Income security.....	*	*	*
14	General government.....	*	*	*

¹Beginning in FY 1998, a number of DOE programs were reclassified from energy (270) to general science (251).

²R&D as percentage of total budget authority is greater than 100 percent or negative because gross budget authority has been reduced by offsetting receipts. In FY 1999 and 2000, offsetting receipts exceeded gross budget authority.

* = Less than one-tenth of 1 percent.

NOTES: Total budget authority includes discretionary and mandatory budget authority, less offsets. Budget function categories are arranged according to the total Federal funding of R&D for FY 2000 but are ranked according to the percentage of each budget function's R&D component to its total budget authority.

SOURCE: Agencies' submissions to Office of Management and Budget, MAX Schedule C; agency budget justification documents; supplemental data obtained from the agencies' budget offices; Office of Management and Budget, *Budget of the United States Government, Fiscal Year 2000, Washington, DC: February, 1999 (Table 34-1).*

R&D BY SPECIFIC BUDGET FUNCTION

Table 6. Federal R&D budget authority for national defense (050): fiscal years 1998-2000

Agency	1998 actual	1999 preliminary	2000 proposed	Percent change 1999-2000
[In millions of dollars]				
Total.....	39,823	40,387	37,710	-6.6
Department of Defense--military (051).....	37,231	37,666	34,795	-7.6
Research, development, test, and evaluation (RDT&E).....	37,090	37,405	34,375	-8.1
Department of the Army.....	5,008	5,032	4,426	-12.0
Department of the Navy.....	7,846	8,640	7,984	-7.6
Department of the Air Force.....	14,265	13,683	13,078	-4.4
Defense agencies.....	9,691	9,757	8,609	-11.8
Ballistic Missile Defense Organization ¹	3,452	3,845	2,944	-23.4
Defense Advanced Research Projects Agency....	2,004	1,930	2,003	3.8
Other defense agencies.....	4,235	3,982	3,662	-8.0
Developmental test and evaluation.....	250	259	253	-2.0
Operational test and evaluation.....	30	34	24	-28.6
Other military funding ²	141	261	420	60.9
Department of Energy--atomic energy defense activities (053).....	2,592	2,721	2,915	7.1
Weapons Activities ³	1,554	1,729	1,954	13.0
Naval reactors development.....	595	595	590	-0.8
Environmental restoration and waste management.....	180	135	108	-20.0
Intelligence.....	4	4	4	0.0
Nonproliferation.....	180	183	180	-1.3
Nuclear safeguards and security.....	21	23	27	17.0
Fissile Materials Disposition ⁴	59	54	53	-1.9

¹FY 1999 figures include \$770 million in contingent emergency funding.

²Adjustment to R&D budget to exclude major construction and add appropriate personnel costs in direct support of conduct of R&D, and other appropriations.

³Includes funding from Stockpile Stewardship and Stockpile Management accounts.

⁴Newly reported line item.

NOTES: Because of rounding, components may not add to totals. Percent change derived from unrounded data.

SOURCE: Departments of Defense (DoD) and Energy (DOE) submissions to Office of Management and Budget, MAX Schedule C; DoD's "RDT&E Programs (R-1)"; Budget of the United States Government; and supplemental data obtained from the DOE budget office.

Table 7. Total obligational authority (TOA) for Department of Defense (DoD) research, development, test, and evaluation (RDT&E) budget: fiscal years 1998-2000

Page 1 of 2

Funding category and agency	1998 actual	1999 preliminary ¹	2000 proposed	Percent change 1999-2000
[In millions of dollars]				
Total RDT&E (budget authority).....	37,090	37,405	34,375	-8.1
Total RDT&E (TOA).....	37,184	37,443	34,375	-8.2
Basic research.....	1,012	1,108	1,113	0.5
Department of the Army.....	177	184	187	1.7
Department of the Navy.....	331	361	377	4.2
Department of the Air Force.....	188	210	210	-0.1
Defense agencies.....	315	353	340	-3.7
Applied research	2,910	3,151	2,959	-6.1
Department of the Army.....	663	628	555	-11.6
Department of the Navy.....	467	567	524	-7.6
Department of the Air Force.....	547	592	508	-14.3
Defense agencies.....	1,233	1,364	1,372	0.6
Advanced technology development.....	3,790	3,532	3,314	-6.2
Department of the Army.....	678	653	525	-19.6
Department of the Navy.....	519	593	520	-12.4
Department of the Air Force.....	461	466	466	0.0
Defense agencies.....	2,133	1,821	1,804	-0.9
Demonstration and validation.....	6,556	7,237	5,580	-22.9
Department of the Army.....	537	498	406	-18.5
Department of the Navy.....	2,222	2,409	2,086	-13.4
Department of the Air Force.....	1,109	1,231	1,077	-12.5
Defense agencies.....	2,688	3,099	2,012	-35.1
Engineering and manufacturing development.....	8,284	7,931	7,538	-5.0
Department of the Army.....	1,131	1,267	1,496	18.0
Department of the Navy.....	2,153	2,200	1,954	-11.2
Department of the Air Force.....	4,293	3,721	3,023	-18.8
Defense agencies.....	708	743	1,065	43.4

See explanatory information and SOURCE at end of table.

Table 7. Total obligational authority (TOA) for Department of Defense (DoD) research, development, test, and evaluation (RDT&E) budget: fiscal years 1998-2000

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Funding category and agency	1998 actual	1999 preliminary ¹	2000 proposed	Percent change 1999-2000
	[In millions of dollars]			
Management support.....	3,516	2,930	2,406	-17.9
Department of the Army.....	1,216	1,137	665	-41.5
Department of the Navy.....	678	599	646	8.0
Department of the Air Force.....	1,035	559	592	6.0
Defense agencies.....	307	343	224	-34.8
Developmental test and evaluation.....	250	259	253	-2.0
Operational test and evaluation.....	30	34	24	-28.6
Operational systems development.....	11,115	11,554	11,465	-0.8
Department of the Army.....	622	666	592	-11.0
Department of the Navy.....	1,517	1,932	1,877	-2.8
Department of the Air Force.....	6,646	6,922	7,203	4.1
Defense agencies.....	2,330	2,034	1,793	-11.9
Adjustment for RDT&E budget authority ²	-94	-38	0	NA

¹FY 1999 figures include \$770 million in contingent emergency funding for the Ballistic Missile Defense Organization (in Defense agencies).

²Detailed budget information on DoD's RDT&E activities is available only in total obligational authority (TOA), which is the sum of new budget authority, unobligated budget authority from previous years, and other authorized credits. Adjustment converts TOA to budget authority by subtracting unobligated budget authority from previous years and other authorized credits from TOA.

KEY: NA = Not applicable

NOTES: Because of rounding, components may not add to totals. Percent change derived from unrounded data.

SOURCE: Data from DoD, "RDT&E Programs (R-1)." Total RDT&E budget authority data from "Budget of the United States Government FY 2000," Appendix pp. 287-294.

Table 8. Federal R&D budget authority for health (550): fiscal years 1998-2000

Agency	1998 actual	1999 preliminary	2000 proposed	Percent change 1999-2000
	[In millions of dollars]			
Total.....	13,576	15,479	15,824	2.2
Health care services and health research and training (551, 552).....	13,466	15,371	15,709	2.2
Department of Health and Human Services (DHHS):				
National Institutes of Health.....	12,880	14,741	15,108	2.5
Centers for Disease Control.....	406	438	478	9.1
Agency for Health Care Policy and Research.....	90	100	27	-73.0
Health Care Financing Administration.....	51	50	55	10.0
Health Resources and Services Administration.....	23	25	25	0.0
Departmental Management	16	17	16	-5.9
Consumer and occupational health and safety (554).....	110	108	115	6.5
Food and Drug Administration (DHHS).....	105	103	110	6.8
Occupational Safety and Health Administration (Dept. of Labor).....	5	5	5	0.0

NOTES: Because of rounding, components may not add to totals. Percent change derived from unrounded data.

SOURCE: Agencies' submissions to Office of Management and Budget, MAX Schedule C; and supplemental data obtained from the agencies' budget offices.

**Table 9. Federal R&D budget authority for the National Institutes of Health (NIH):
fiscal years 1998-2000**

Agency	1998 actual	1999 preliminary	2000 proposed	Percent change 1999-2000
[In millions of dollars]				
Total.....	12,880	14,741	15,108	2.5
National Cancer Institute.....	2,275	2,626	2,671	1.7
National Heart, Lung, and Blood Institute.....	1,410	1,666	1,697	1.8
National Institute of Allergy and Infectious Diseases.....	631	743	765	3.0
National Institute of General Medical Sciences.....	924	1,040	1,068	2.7
National Institute of Diabetes and Digestive and Kidney Diseases.....	852	939	965	2.8
National Institute of Neurological Disorders and Stroke.....	734	852	869	2.0
National Institute of Mental Health.....	613	706	718	1.7
National Institute of Child Health and Human Development.....	584	650	668	2.9
National Institute on Drug Abuse.....	359	402	417	3.8
National Institute on Aging.....	500	577	596	3.1
National Center for Research Resources.....	347	425	436	2.6
National Eye Institute.....	336	376	386	2.7
National Institute of Environmental Health Sciences.....	310	354	376	6.2
National Institute of Arthritis and Musculoskeletal and Skin Diseases.....	262	293	300	2.2
National Institute on Alcohol Abuse and Alcoholism.....	206	237	242	2.3
National Institute of Dental and Cranofacial Research.....	189	207	216	4.5
National Institute on Deafness and Other Communication Disorders.....	191	220	227	3.3
National Human Genome Research Institute.....	212	257	267	4.1
National Library of Medicine.....	73	85	88	4.2
National Institute of Nursing Research.....	53	58	60	3.0
John E. Fogarty International Center.....	18	23	23	2.4
Office of AIDS Research ¹	1,562	1,759	1,799	2.3
Office of the Director.....	239	200	205	2.4
National Center for Complementary and Alternative Medicine ²	0	46	47	2.4

¹The Office of AIDS Research (OAR) was created in FY 1995 to consolidate NIH-wide AIDS research. OAR funds AIDS research in other institutes. AIDS research funded in individual institutes for FY 1998 and FY 1999 has been consolidated in the OAR account for comparison purposes.

²Created in FY 1999. FY 1998 funding is in the Office of the Director.

NOTES: Because of rounding, components may not add to totals. Percent change derived from unrounded data.

Excludes non-R&D and R&D facilities components of institute budgets.

SOURCE: Departmental submission to Office of Management and Budget, MAX Schedule C; and supplemental data obtained from the NIH budget office.

**Table 10. Federal R&D budget authority for space research and technology (252):
fiscal years 1998-2000**

Funding category	1998 actual	1999 preliminary	2000 proposed	Percent change 1999-2000
	[In millions of dollars]			
Total.....	8,198	8,239	8,422	2.2
National Aeronautics and Space Administration (NASA):				
Space Station.....	2,611	2,613	2,856	9.3
Other human space flight.....	84	20	7	-64.7
Space science.....	2,312	2,401	2,504	4.3
Life and microgravity sciences.....	337	353	341	-3.3
Earth science ¹	1,560	1,564	1,628	4.1
Advanced space transportation.....	540	577	397	-31.1
Commercial technology.....	186	166	160	-3.8
Academic programs.....	145	148	111	-25.3
Mission communication services	423	398	418	4.9

¹Formerly mission to Planet Earth.

NOTES: Includes funds for research and research program management, but excludes fixed capital equipment costs.
Because of rounding, components may not add to totals. Percent change derived from unrounded data.

SOURCE: Agencies' submissions to Office of Management and Budget, MAX Schedule C; budget justification documents;
and supplemental data obtained from the NASA budget and the NASA budget office.

**Table 11. Federal R&D budget authority for general science and basic research (251):
fiscal years 1998-2000**

Funding category	1998 actual	1999 preliminary	2000 proposed	Percent change 1999-2000
	[In millions of dollars]			
Total.....	4,360	4,739	4,951	4.5
National Science Foundation (NSF).....	2,286	2,513	2,699	7.4
Mathematical and physical sciences.....	687	734	754	2.7
Geosciences.....	438	473	485	2.6
Biological sciences.....	356	391	409	4.5
Engineering	343	369	379	2.7
Computer and information science and engineering.....	269	299	423	41.5
U.S. polar research programs.....	160	182	188	3.0
Social, behavioral, and economic sciences.....	113	123	128	4.4
Integrative activities ¹	130	161	161	-0.1
Education and human resources.....	98	108	108	0.0
Budget authority adjustment ²	-308	-327	-336	2.7
Department of Energy ³	2,075	2,226	2,252	1.2
High energy physics.....	499	567	549	-3.1
Nuclear physics.....	220	279	303	8.7
Fusion energy sciences ⁴	200	204	211	3.4
Basic energy sciences ³	569	616	618	0.4
Computational and technology research ³	138	150	184	22.8
University and science education ³	0	0	0	NA
Multiprogram lab support ³	0	1	1	0.0
Energy research analyses ³	1	1	1	10.1
Small business innovation research ³	81	0	0	NA
Biological and environmental research ³	367	409	385	-5.9
Human genome.....	85	89	91	2.2
All other research.....	282	320	294	-8.1

¹New account beginning in FY 1999 to support cross-disciplinary research and instrumentation. FY 1998 data have been adjusted for comparability to data in FY 1999 and FY 2000.

²Detailed R&D funding data for NSF are expressed only in obligations. Budget authority adjustment converts obligations to budget authority. Includes funding derived from the Intellectual Infrastructure fund in FY 1998 and FY 1999. Adjustment also subtracts research facilities and major equipment support costs, and other non-R&D costs.

³Beginning in FY 1998, a number of DOE programs were reclassified from energy (270) to general science and basic research (251).

⁴Reclassified from energy (270) function.

KEY: NA = Not applicable

NOTES: Because of rounding, components may not add to totals. Percent change derived from unrounded data.

SOURCE: Agencies' submissions to Office of Management and Budget, MAX Schedule C; budget justification documents; and supplemental data obtained from the agencies' budget offices.

**Table 12. Federal R&D budget authority for natural resources and environment (300):
fiscal years 1998-2000**

Funding category	1998 actual	1999 preliminary	2000 proposed	Percent change 1999-2000
[In millions of dollars]				
Total.....	1,855	1,928	1,944	0.8
Pollution control and abatement (304)				
Environmental Protection Agency.....	571	563	535	-4.9
Science and technology ¹	534	521	496	-4.8
Superfund.....	35	40	37	-6.0
Leaking underground storage tanks (LUST).....	1	1	1	0.0
Oil spill response research.....	1	1	1	11.1
Other accounts.....	1	1	0	-100.0
Conservation and land management (302).....	209	219	254	16.0
Forest Service (USDA).....	189	199	234	17.6
Department of the Interior ²	20	20	20	0.0
Recreational resources (303).....	142	160	159	-0.3
Geological Survey ³ (Interior).....	108	126	125	-0.4
National Park Service (Interior).....	34	34	34	0.0
Water resources (301).....	52	50	42	-16.0
Corps of Engineers (DoD).....	42	40	32	-20.0
Bureau of Reclamation (Interior).....	10	10	10	0.0
Other natural resources (306).....	880	937	954	1.9
Geological Survey ⁴ (Interior).....	357	372	389	4.7
National Oceanic and Atmospheric Administration (Commerce).....	523	565	565	0.0

¹Includes budget authority for R&D transferred from Superfund account.

²Includes Bureau of Land Management, Office of Surface Mining and Reclamation, and Minerals Management Service.

³Natural resources research formerly funded by the National Biological Service.

⁴National mapping, water resources, and geological research.

NOTES: Because of rounding, components may not add to totals. Percent change derived from unrounded data.

SOURCE: Agencies' submissions to Office of Management and Budget, MAX Schedule C;
budget justification documents; and supplemental data obtained from the agencies' budget offices.

**Table 13. Federal R&D budget authority for other natural resources (306):
fiscal years 1998-2000**

Funding category	1998 actual	1999 preliminary	2000 proposed	Percent change 1999-2000
	[In millions of dollars]			
Total.....	880	937	954	1.9
U.S. Geological Survey (Interior).....	357	372	389	4.7
Geologic and mineral resource surveys and mapping.....	195	199	199	-0.1
Water resources investigations.....	108	119	119	-0.5
National mapping, geography, and survey.....	23	23	24	4.5
Integrated science.....	30	30	48	57.5
National Oceanic and Atmospheric Administration (Commerce).....	523	565	565	0.0

NOTES: Because of rounding, components may not add to totals. Percent change derived from unrounded data.

SOURCE: Agencies' submissions to Office of Management and Budget, MAX Schedule C;
budget justification documents; and supplemental data obtained from the agencies' budget offices.

Table 14. Federal R&D budget authority for transportation (400): fiscal years 1998-2000

Budget function	1998 actual	1999 preliminary	2000 proposed	Percent change 1999-2000
[In millions of dollars]				
Total.....	1,833	1,731	1,840	6.3
Air transportation (402).....	1,489	1,355	1,251	-7.6
National Aeronautics and Space Administration ¹	1,261	1,144	1,019	-10.9
Aeronautical research and technology.....	1,261	1,144	1,019	-10.9
Federal Aviation Administration (DOT).....	228	211	232	9.9
Ground transportation (DOT) (401).....	316	346	561	62.0
Federal Highway Administration.....	231	258	459	78.3
National Highway Traffic Safety Administration.....	42	50	59	16.6
Federal Railroad Administration.....	20	22	24	9.3
Federal Transit Administration.....	23	17	19	15.2
Water transportation (DOT) (403).....	19	14	15	6.7
U.S. Coast Guard.....	19	14	15	6.7
Maritime Administration.....	0	0	0	NA
Other transportation (DOT) (407) ²	10	16	12	-23.0

¹Includes funds for research and research program management.

²Includes Office of the Secretary and the Research and Special Programs Administration.

KEY: NA = Not applicable

NOTES: Because of rounding, components may not add to totals. Percent change derived from unrounded data.

SOURCE: Agencies' submissions to Office of Management and Budget, MAX Schedule C; and supplemental data obtained from the agencies' budget offices.

Table 15. Federal R&D budget authority for agriculture (350): fiscal years 1998-2000

Funding category	1998 actual	1999 preliminary	2000 proposed	Percent change 1999-2000
[In millions of dollars]				
Total.....	1,249	1,352	1,522	12.6
Agricultural research and services (352):				
Department of Agriculture				
Agricultural Research Service.....	726	792	816	3.0
Research on plant sciences.....	254	301	276	-8.1
Research on commodity conversion and delivery.....	148	162	161	-0.8
Research on animal sciences.....	120	127	130	2.8
Research on soil, water, and air sciences...	85	85	108	26.7
Research on human nutrition.....	70	68	89	29.8
Integration of agricultural systems.....	28	30	31	2.5
Agricultural information and library services.....	20	19	21	11.6
Cooperative State Research, Education, and Extension Service.....	414	462	595	28.9
National Research Initiative.....	97	119	200	67.6
Plant systems.....	37	41	69	68.3
Animal systems.....	24	29	49	69.0
Natural resources and environment.....	18	21	32	56.1
Nutrition, food safety, and health.....	8	16	28	75.0
Processes and new products.....	7	8	14	70.7
Rural development, markets, and trade...	4	5	8	73.9
Payments under the Hatch Act.....	169	181	154	-14.9
Special research grants.....	47	55	5	-90.7
Improved pest control.....	14	14	18	33.9
Payments to 1890 colleges and Tuskegee Institute (Evans-Allen).....	28	30	28	-6.5
McIntire-Stennis cooperative forestry.....	20	22	20	-9.3
Initiative for Future Agriculture and Food Systems ¹	0	0	120	NA
Other research programs.....	39	42	51	20.9
Economic Research Service.....	72	63	56	-11.1
Animal and Plant Health Inspection Service..	19	20	18	-10.0
National Agricultural Statistics Service.....	3	3	3	0.0
Agricultural Marketing Service.....	5	5	5	0.0
Federal Grain Inspection Service.....	3	3	3	0.0
Foreign Agricultural Service.....	1	1	1	0.0
Alternative Agricultural Research and Commercialization.....	7	3	10	233.3
Office of the Secretary ¹	0	0	15	NA

¹Mandatory (non-appropriated) program. The FY 1999 Agriculture appropriations bill blocks the expenditure of these funds in FY 1999. The budget proposes to restore the FY 1999 funds and rescind them in FY 2000, and to allow the expenditure of FY 2000 funds. This table shows positive budget authority in FY 2000 to best reflect year-to-year funding trends.

KEY: NA = Not applicable

NOTES: Because of rounding, components may not add to totals. Percent change derived from unrounded data.

SOURCE: USDA's submission to Office of Management and Budget, MAX Schedule C; budget justification documents; and supplemental data obtained from the USDA budget office.

Table 16. Federal R&D budget authority for energy (270): fiscal years 1998-2000

Funding category	1998 actual	1999 preliminary	2000 proposed	Percent change 1999-2000
	[In millions of dollars]			
Total.....	948	1,164	1,348	15.8
Department of Energy ¹	862	1,080	1,266	17.3
Fossil energy (271).....	173	252	297	17.8
Clean coal technology ²	-101	-40	10	-125.0
Cooperative R&D.....	6	7	6	-14.6
Petroleum, coal, and gas program.....	268	286	282	-1.4
Energy supply (271).....	291	366	437	19.3
Nuclear energy.....	38	73	85	16.7
Solar and renewables.....	253	293	352	20.0
Radioactive waste management (271).....	58	61	55	-10.5
Energy conservation (272).....	340	400	477	19.3
Tennessee Valley Authority (271).....	34	35	35	0.0
Nuclear Regulatory Commission (276).....	52	49	47	-4.1

¹Beginning in FY 1998, a number of DOE programs were reclassified from energy (270) to general science and basic research (251).

²Negative for some years because of rescissions and deferrals of previously appropriated funds. Does not reflect proposed FY 2000 deferrals.

NOTES: Because of rounding, components may not add to totals. Percent change derived from unrounded data.

SOURCE: Agencies' submissions to Office of Management and Budget, MAX Schedule C; DOE's budget justification documents; and supplemental data obtained from the agencies' budget offices.

**Table 17. Federal R&D budget authority for veterans benefits and services (700):
fiscal years 1998-2000**

Funding category	1998 actual	1999 preliminary	2000 proposed	Percent change 1999-2000
	[In millions of dollars]			
Total.....	587	674	663	-1.6
Department of Veterans Affairs Medical and prosthetic research (703)	587	674	663	-1.6

NOTES: Includes administration and operating expenses related to the VA's research. Percent change derived from unrounded data.

SOURCE: Departmental submission to Office of Management and Budget, MAX Schedule C.

**Table 18. Federal R&D budget authority for education, training, employment,
and social services (500): fiscal years 1998-2000**

Budget function	1998 actual	1999 preliminary	2000 proposed	Percent change 1999-2000
	[In millions of dollars]			
Total.....	444	457	491	7.4
Research and general education aids (501, 502, 503).....	240	251	305	21.5
Department of Education programs.....	114	123	169	37.4
Smithsonian Institution programs.....	126	128	136	6.3
Social services (506).....	131	141	148	5.0
Administration for Children and Families (DHHS).....	29	27	28	3.7
Administration on Aging (DHHS).....	11	18	18	0.0
Rehabilitation services (Education).....	91	96	102	6.3
Training and employment (504) (Labor's Employment and Training Administration).....	73	65	38	-41.5
Other labor services (505) (Labor).....	0	0	0	NA

KEY: NA = Not applicable

NOTES: Because of rounding, components may not add to totals. Percent change derived from unrounded data.

SOURCE: Agencies' submissions to Office of Management and Budget, MAX Schedule C; and supplemental data obtained from the agencies' budget offices.

**Table 19. Federal R&D budget authority for commerce and housing credit (370):
fiscal years 1998-2000**

Funding category	1998 actual	1999 preliminary	2000 proposed	Percent change 1999-2000
	[In millions of dollars]			
Total.....	398	401	448	11.7
Other advancement of commerce (376):				
Department of Commerce				
National Institute of Standards and Technology (NIST)	392	395	442	11.9
Electronics and electrical engineering....	36	38	38	0.9
Manufacturing engineering.....	18	19	19	1.2
Chemical science and technology.....	32	32	34	3.5
Physics.....	27	27	27	1.1
Materials science.....	41	41	42	2.4
Building and fire research.....	21	14	13	-8.9
Computer science and applied math.....	42	42	46	8.0
Technology assistance.....	2	3	3	16.5
Research support activities.....	16	17	18	6.5
Deduct capital equipment.....	-16	-16	-16	0.0
Industrial technology services				
Advanced Technology Program.....	173	178	219	22.7
Technology Administration.....	0	0	0	NA
Bureau of the Census.....	2	2	2	0.0
National Telecommunications and Information Administration.....	4	4	4	0.0

KEY: NA = Not applicable

NOTES: Because of rounding, components may not add to totals. Percent change derived from unrounded data.

SOURCE: Departmental submission to Office of Management and Budget, MAX Schedule C; and supplemental data obtained from the agencies' budget offices.

Table 20. Federal R&D budget authority for the Agency for International Development (AID) and other international programs (150): fiscal years 1998-2000

Funding category	1998 actual	1999 preliminary	2000 proposed	Percent change 1999-2000
	[In millions of dollars]			
Total (150).....	163	165	115	-30.3
Agency for International Development (AID) (151):.....	141	143	94	-34.3
International Security Assistance (152).....	21	21	21	0.0
Department of State (154).....	1	1	0	-100.0

NOTES: Because of rounding, components may not add to totals. Percent change derived from unrounded data.

SOURCE: AID submission to Office of Management and Budget, MAX Schedule C;
and supplemental data obtained from the AID budget office.

**Table 21. Federal R&D budget authority for administration of justice (750):
fiscal years 1998-2000**

Funding category	1998 actual	1999 preliminary	2000 proposed	Percent change 1999-2000
	[In millions of dollars]			
Total.....	72	82	59	-28.0
Department of Justice.....	61	71	48	-32.4
Office of Justice Programs (754).....	49	59	36	-39.0
Federal Bureau of Investigation (751).....	5	5	5	0.0
Federal Prison System (753).....	6	6	6	0.0
Drug Enforcement Administration (751).....	0	0	0	NA
Immigration and Naturalization Service (751).....	1	1	1	0.0
Department of the Treasury.....	11	11	11	0.0
U.S. Customs Service (751).....	11	11	11	0.0

KEY: NA = Not applicable

NOTES: Because of rounding, components may not add to the totals shown. Percent change is derived from unrounded data.

SOURCE: Agencies' submissions to Office of Management and Budget, MAX Schedule C;
and supplemental data obtained from the agencies' budget offices.

Table 22. Federal R&D budget authority for community and regional development (450): fiscal years 1998-2000

Funding category	1998 actual	1999 preliminary	2000 proposed	Percent change 1999-2000
	[In millions of dollars]			
Total.....	42	49	51	4.1
Tennessee Valley Authority (452).....	4	0	0	NA
Department of Housing and Urban Development (451).....	37	48	50	4.2
Department of Commerce Economic Development Administration (452)...	1	1	1	0.0

KEY: NA = Not applicable

NOTES: Because of rounding, components may not add to the totals shown. Percent change is derived from unrounded data.

SOURCE: Agencies' submissions to Office of Management and Budget, MAX Schedule C;
and supplemental data obtained from the agencies' budget offices.

**Table 23. Federal R&D budget authority for income security (600):
fiscal years 1998-2000**

Funding category	1998 actual	1999 preliminary	2000 proposed	Percent change 1999-2000
	[In millions of dollars]			
Total.....	18	37	24	-35.1
Social Security Administration ¹	18	37	24	-35.1
Department of Labor.....	0	0	0	NA
Pension Benefit Guarantee Corporation (601).....	0	0	0	NA

¹Actual functional code is 650, Social Security.

KEY: NA = Not applicable

NOTES: Because of rounding, components may not add to the totals shown. Percent change is derived from unrounded data.

SOURCE: Agencies' submissions to Office of Management and Budget, MAX Schedule C;
and supplemental data obtained from the agencies' budget offices.

**Table 24. Federal R&D budget authority for general government (800):
fiscal years 1998-2000**

Funding category	1998 actual	1999 preliminary	2000 proposed	Percent change 1999-2000
	[In millions of dollars]			
Total.....	2	2	2	0.0
Department of Treasury Engraving and Printing (803).....	2	2	2	0.0

NOTE: Percent change is derived from unrounded data.

SOURCE: Agencies' submissions to Office of Management and Budget, MAX Schedule C;
and supplemental data obtained from the agencies' budget offices.

HISTORICAL TABLES

Table 25a. Federal R&D obligations, by selected budget function: fiscal years 1955-60

Budget function	1955	1956	1957	1958	1959	1960
[In millions of dollars]						
Total.....	2,533	2,988	3,932	4,570	6,694	7,522
National defense.....	2,151	2,535	3,327	3,801	5,556	6,107
Health.....	67	83	140	177	233	305
All other functions.....	315	370	465	592	904	1,140
[In millions of constant FY 1992 dollars]						
Total.....	12,552	14,297	18,120	20,549	29,398	32,269
National defense.....	10,659	12,129	15,332	17,091	24,401	26,199
Health.....	332	397	645	796	1,023	1,308
All other functions.....	1,561	1,770	2,143	2,662	3,970	4,891

NOTES: Because of rounding, components may not add to the totals shown. GDP implicit price deflators used to convert current dollars to constant 1992 dollars.

SOURCE: Agencies' submissions to Office of Management and Budget Circular No. A-11, Exhibit 44A, "Research and Development Activities"; and supplemental data obtained from the agencies' budget offices.

Table 25b. Federal R&D obligations, by selected budget function: fiscal years 1961-66

Budget function	1961	1962	1963	1964	1965	1966
[In millions of dollars]						
Total.....	9,059	10,290	12,495	14,225	14,614	15,320
National defense.....	7,005	7,238	7,764	7,829	7,342	7,536
Health.....	405	551	626	728	792	900
Space research and technology.....	777	1,413	2,812	4,241	4,887	4,976
Energy.....	373	448	515	571	585	575
General science.....	137	187	246	277	304	377
Natural resources and environment.....	73	108	120	134	159	189
Transportation.....	55	101	142	122	147	251
Agriculture.....	125	136	146	165	195	201
All other functions.....	108	107	125	160	203	315
[In millions of constant FY 1992 dollars]						
Total.....	38,272	43,036	51,590	58,014	58,597	60,126
National defense.....	29,594	30,272	32,056	31,929	29,439	29,576
Health.....	1,711	2,304	2,585	2,969	3,176	3,532
Space research and technology.....	3,283	5,910	11,610	17,296	19,595	19,529
Energy.....	1,576	1,874	2,126	2,329	2,346	2,257
General science.....	579	782	1,016	1,130	1,219	1,480
Natural resources and environment.....	308	452	495	546	638	742
Transportation.....	232	422	586	498	589	985
Agriculture.....	528	569	603	673	782	789
All other functions.....	456	448	516	653	814	1,236

NOTES: Because of rounding, components may not add to the totals shown. GDP implicit price deflators used to convert current dollars to constant 1992 dollars.

SOURCE: Agencies' submissions to Office of Management and Budget Circular No. A-11, Exhibit 44A, "Research and Development Activities"; and supplemental data obtained from the agencies' budget offices.

Table 25c. Federal R&D obligations, by budget function: fiscal years 1967-72

Budget function	1967	1968	1969	1970	1971	1972
[In millions of dollars]						
Total.....	16,529	15,921	15,641	15,339	15,543	16,496
National defense.....	8,566	8,275	8,356	7,981	8,110	8,902
Health.....	915	1,021	1,088	1,084	1,288	1,547
Space research and technology.....	4,778	4,304	3,799	3,606	3,048	2,932
Energy.....	600	657	597	574	556	574
General science.....	409	437	433	452	513	625
Natural resources and environment.....	320	331	323	340	416	479
Transportation.....	380	304	404	535	728	558
Agriculture.....	218	217	221	238	259	294
Education, training, employment, and social services.....	154	166	169	164	215	235
International affairs.....	18	17	26	32	32	29
Veterans benefits and services.....	41	45	50	59	63	69
Commerce and housing credit.....	43	48	54	79	90	50
Community and regional development.....	37	44	32	47	65	66
Administration of justice.....	*	1	5	9	10	23
Income security.....	48	50	78	136	145	106
General government.....	3	5	5	6	7	8
[In millions of constant FY 1992 dollars]						
Total.....	62,776	58,340	54,861	51,113	49,265	49,897
National defense.....	32,533	30,322	29,309	26,594	25,705	26,927
Health.....	3,475	3,741	3,816	3,612	4,082	4,679
Space research and technology.....	18,147	15,771	13,325	12,016	9,661	8,869
Energy.....	2,279	2,407	2,094	1,913	1,762	1,736
General science.....	1,553	1,601	1,519	1,506	1,626	1,891
Natural resources and environment.....	1,215	1,213	1,133	1,133	1,319	1,449
Transportation.....	1,443	1,114	1,417	1,783	2,307	1,688
Agriculture.....	828	795	775	793	821	889
Education, training, employment, and social services.....	585	608	593	546	681	711
International affairs.....	68	62	91	107	101	88
Veterans benefits and services.....	156	165	175	197	200	209
Commerce and housing credit.....	163	176	189	263	285	151
Community and regional development.....	141	161	112	157	206	200
Administration of justice.....	*	4	18	30	32	70
Income security.....	182	183	274	453	460	321
General government.....	11	18	18	20	22	24

* = Less than \$500,000.

NOTES: Because of rounding, components may not add to the totals shown. GDP implicit price deflators used to convert current dollars to constant 1992 dollars.

SOURCE: Agencies' submissions to Office of Management and Budget, Circular No. A-11, Exhibit 44A, "Research and Development Activities"; and supplemental data obtained from the agencies' budget offices.

Table 25d. Federal R&D obligations, by budget function: fiscal years 1973-77

Budget function	1973	1974	1975	1976	1977
[In millions of dollars]					
Total.....	16,800	17,410	19,039	20,780	23,450
National defense.....	9,002	9,016	9,679	10,430	11,864
Health.....	1,585	2,069	2,170	2,351	2,629
Space research and technology.....	2,824	2,702	2,764	3,130	2,832
Energy.....	630	759	1,363	1,649	2,562
General science.....	658	749	813	858	974
Natural resources and environment.....	554	516	624	683	753
Transportation.....	572	693	635	631	708
Agriculture.....	308	313	342	383	457
Education, training, employment, and social services.....	290	236	239	255	230
International affairs.....	28	24	29	42	66
Veterans benefits and services.....	74	85	95	98	107
Commerce and housing credit.....	50	51	65	69	71
Community and regional development.....	78	82	93	109	101
Administration of justice.....	33	35	44	35	30
Income security.....	106	71	72	48	55
General government.....	7	9	12	12	13
[In millions of constant FY 1992 dollars]					
Total.....	48,696	47,105	46,687	47,519	49,872
National defense.....	26,093	24,394	23,735	23,851	25,232
Health.....	4,594	5,598	5,321	5,376	5,591
Space research and technology.....	8,186	7,311	6,778	7,158	6,023
Energy.....	1,826	2,054	3,342	3,771	5,449
General science.....	1,907	2,027	1,994	1,962	2,071
Natural resources and environment.....	1,606	1,396	1,530	1,562	1,601
Transportation.....	1,658	1,875	1,557	1,443	1,506
Agriculture.....	893	847	839	876	972
Education, training, employment, and social services.....	841	639	586	583	489
International affairs.....	81	65	71	96	140
Veterans benefits and services.....	214	230	233	224	228
Commerce and housing credit.....	145	138	159	158	151
Community and regional development.....	226	222	228	249	215
Administration of justice.....	96	95	108	80	64
Income security.....	307	192	177	110	117
General government.....	20	24	29	27	28

NOTES: Because of rounding, components may not add to the totals shown. GDP implicit price deflators used to convert current dollars to constant 1992 dollars.

SOURCE: Agencies' submissions to Office of Management and Budget, Circular No. A-11, Exhibit 44A, "Research and Development Activities"; and supplemental data obtained from the agencies' budget offices.

Table 25e. Federal R&D budget authority, by budget function: fiscal years 1978-83

Budget function	1978	1979	1980	1981	1982	1983
[In millions of dollars]						
Total.....	25,976	28,208	29,739	33,735	36,115	38,768
National defense.....	12,899	13,791	14,946	18,413	22,070	24,936
Health.....	2,968	3,401	3,694	3,871	3,869	4,298
Space research and technology.....	2,939	3,136	2,738	3,111	2,584	2,134
Energy.....	3,134	3,461	3,603	3,501	3,012	2,578
General science.....	1,050	1,119	1,233	1,340	1,359	1,502
Natural resources and environment.....	904	1,010	999	1,061	965	952
Transportation.....	768	798	887	869	791	876
Agriculture.....	501	552	585	659	693	745
Education, training, employment and social services.....	345	354	468	298	228	189
International affairs.....	57	117	125	160	165	177
Veterans benefits and services.....	111	123	126	143	139	157
Commerce and housing credit.....	77	93	101	106	104	107
Community and regional development.....	92	127	119	104	63	44
Administration of justice.....	44	47	45	34	31	37
Income security.....	67	57	47	43	32	32
General government.....	20	23	22	22	10	6
[In millions of constant FY 1992 dollars]						
Total.....	51,652	51,777	50,108	51,773	51,770	53,121
National defense.....	25,649	25,314	25,183	28,258	31,637	34,168
Health.....	5,902	6,243	6,224	5,941	5,546	5,889
Space research and technology.....	5,844	5,756	4,613	4,774	3,704	2,924
Energy.....	6,232	6,353	6,071	5,373	4,318	3,532
General science.....	2,088	2,054	2,078	2,056	1,948	2,058
Natural resources and environment.....	1,798	1,854	1,683	1,628	1,383	1,304
Transportation.....	1,527	1,465	1,495	1,334	1,134	1,200
Agriculture.....	996	1,013	986	1,011	993	1,021
Education, training, employment and social services.....	686	650	789	457	327	259
International affairs.....	113	215	211	246	237	243
Veterans benefits and services.....	221	226	212	219	199	215
Commerce and housing credit.....	153	171	170	163	149	147
Community and regional development.....	183	233	201	160	90	60
Administration of justice.....	87	86	76	52	44	51
Income security.....	133	105	79	66	46	44
General government.....	40	42	37	34	14	8

NOTES: Because of rounding, components may not add to the totals shown. GDP implicit price deflators used to convert current dollars to constant 1992 dollars.

SOURCE: Agencies' submissions to Office of Management and Budget, Circular No. A-11, Exhibit 44A, "Research and Development Activities"; and supplemental data obtained from the agencies' budget offices.

Table 25f. Federal R&D budget authority, by budget function: fiscal years 1984-89

Budget function	1984	1985	1986	1987	1988	1989
[In millions of dollars]						
Total.....	44,214	49,887	53,249	57,069	59,106	62,115
National defense.....	29,287	33,698	36,926	39,152	40,099	40,665
Health.....	4,779	5,418	5,565	6,556	7,076	7,773
Space research and technology.....	2,300	2,725	2,894	3,398	3,683	4,555
Energy.....	2,581	2,389	2,286	2,053	2,126	2,419
General science.....	1,676	1,862	1,873	2,042	2,160	2,373
Natural resources and environment.....	963	1,059	1,062	1,133	1,160	1,255
Transportation.....	1,040	1,030	917	908	896	1,064
Agriculture.....	762	836	815	822	882	907
Education, training, employment and social services.....	200	220	248	267	285	347
International affairs.....	192	210	211	223	224	279
Veterans benefits and services.....	218	193	183	215	195	212
Commerce and housing credit.....	110	114	111	110	122	128
Community and regional development.....	46	50	88	99	108	74
Administration of justice.....	24	47	41	49	51	45
Income security.....	26	21	14	25	23	27
General government.....	8	17	14	17	17	15
[In millions of constant FY 1992 dollars]						
Total.....	58,345	63,623	66,058	68,808	68,880	69,449
National defense.....	38,647	42,977	45,808	47,205	46,730	45,466
Health.....	6,306	6,910	6,904	7,905	8,246	8,691
Space research and technology.....	3,035	3,475	3,590	4,097	4,292	5,093
Energy.....	3,406	3,047	2,836	2,475	2,478	2,705
General science.....	2,212	2,375	2,324	2,462	2,517	2,653
Natural resources and environment.....	1,271	1,351	1,317	1,366	1,352	1,403
Transportation.....	1,372	1,314	1,138	1,095	1,044	1,190
Agriculture.....	1,006	1,066	1,011	991	1,028	1,014
Education, training, employment and social services.....	264	281	308	322	332	388
International affairs.....	253	268	262	269	261	312
Veterans benefits and services.....	288	246	227	259	227	237
Commerce and housing credit.....	145	145	138	133	142	143
Community and regional development.....	61	64	109	119	126	83
Administration of justice.....	32	60	51	59	59	50
Income security.....	34	27	17	30	27	30
General government.....	11	22	17	20	20	17

NOTES: Because of rounding, components may not add to the totals shown. GDP implicit price deflators used to convert current dollars to constant 1992 dollars.

SOURCE: Agencies' submissions to Office of Management and Budget, Circular No. A-11, Exhibit 44A, "Research and Development Activities"; and supplemental data obtained from the agencies' budget offices.

Table 25g. Federal R&D budget authority, by budget function: fiscal years 1990-95

Budget function	1990	1991	1992	1993	1994	1995
[In millions of dollars]						
Total.....	63,781	65,898	68,398	69,884	68,331	68,791
National defense.....	39,925	39,328	40,061	41,249	37,764	37,204
Health.....	8,308	9,226	10,055	10,280	10,993	11,407
Space research and technology.....	5,765	6,511	6,744	6,988	7,414	7,916
Energy.....	2,726	2,953	3,153	2,677	2,873	2,844
General science.....	2,410	2,635	2,659	2,691	2,712	2,794
Natural resources and environment.....	1,386	1,582	1,688	1,802	2,062	1,988
Transportation.....	1,045	1,231	1,523	1,703	1,888	1,833
Agriculture.....	950	1,052	1,155	1,152	1,193	1,194
Education, training, employment, and social services.....	374	433	365	348	373	369
International affairs.....	375	378	371	382	254	287
Veterans benefits and services.....	216	219	245	250	265	257
Commerce and housing credit.....	140	178	192	220	380	525
Community and regional development..	67	88	95	57	68	70
Administration of justice.....	44	51	51	49	46	59
Income security.....	33	30	37	36	45	43
General government.....	17	4	4	*	0	1
[In millions of constant FY 1992 dollars]						
Total.....	68,471	67,831	68,398	68,087	65,003	63,903
National defense.....	42,861	40,482	40,061	40,188	35,925	34,560
Health.....	8,919	9,497	10,055	10,015	10,458	10,597
Space research and technology.....	6,189	6,701	6,744	6,808	7,053	7,354
Energy.....	2,926	3,040	3,153	2,608	2,733	2,642
General science.....	2,587	2,712	2,659	2,621	2,579	2,595
Natural resources and environment.....	1,488	1,628	1,688	1,755	1,962	1,847
Transportation.....	1,122	1,267	1,523	1,660	1,796	1,703
Agriculture.....	1,020	1,083	1,155	1,122	1,135	1,109
Education, training, employment, and social services.....	402	446	365	339	355	343
International affairs.....	403	389	371	372	242	267
Veterans benefits and services.....	232	226	245	244	252	239
Commerce and housing credit.....	150	184	192	214	362	488
Community and regional development..	72	91	95	56	64	65
Administration of justice.....	47	52	51	48	44	55
Income security.....	35	31	37	35	43	40
General government.....	18	4	4	*	0	1

* = Less than \$500,000.

NOTES: Because of rounding, components may not add to the totals shown. GDP implicit price deflators used to convert current dollars to constant FY 1992 dollars.

SOURCE: Agencies' submissions to Office of Management and Budget, MAX Schedule C; agency budget justification documents; and supplemental data obtained from the agencies' budget offices.

Table 25h. Federal R&D budget authority, by budget function: fiscal years 1996-2000

Budget function	1996	1997	1998	1999 preliminary	2000 proposed
[In millions of dollars]					
Total.....	69,049	71,653	73,569	76,886	75,415
National defense.....	37,801	39,591	39,823	40,387	37,710
Health.....	11,867	12,670	13,576	15,479	15,824
Space research and technology.....	7,844	7,844	8,198	8,239	8,422
Energy ¹	2,521	2,372	948	1,164	1,348
General science ¹	2,846	2,944	4,360	4,739	4,951
Natural resources and environment.....	1,802	1,886	1,855	1,928	1,944
Transportation.....	1,795	1,785	1,833	1,731	1,840
Agriculture.....	1,176	1,203	1,249	1,352	1,522
Education, training, employment, and social services.....	331	373	444	457	491
International affairs.....	252	190	163	165	115
Veterans benefits and services.....	259	267	587	674	663
Commerce and housing credit.....	432	409	398	401	448
Community and regional development.....	50	48	42	49	51
Administration of justice.....	56	59	72	82	59
Income security.....	16	9	18	37	24
General government.....	2	2	2	2	2
[In millions of constant FY 1992 dollars]					
Total.....	62,909	64,073	65,007	67,067	64,496
National defense.....	34,440	35,403	35,189	35,230	32,250
Health.....	10,812	11,330	11,996	13,502	13,533
Space research and technology.....	7,146	7,014	7,244	7,187	7,203
Energy ¹	2,296	2,121	838	1,015	1,153
General science ¹	2,593	2,633	3,853	4,134	4,234
Natural resources and environment.....	1,642	1,687	1,639	1,682	1,663
Transportation.....	1,635	1,596	1,620	1,510	1,573
Agriculture.....	1,071	1,076	1,104	1,179	1,302
Education, training, employment, and social services.....	302	334	392	399	420
International affairs.....	230	170	144	144	98
Veterans benefits and services.....	236	239	519	588	567
Commerce and housing credit.....	393	365	352	350	383
Community and regional development.....	46	43	37	43	44
Administration of justice.....	51	53	64	72	50
Income security.....	15	8	16	32	21
General government.....	2	2	2	2	2

¹Beginning in FY 1998, a number of DOE programs were reclassified from energy (270) to general science (251).

NOTES: Data for 1990-98 are actual budget authority. Data for 1999 are preliminary estimates, and data for 2000 are proposed based on the fiscal year 2000 budget. GDP implicit price deflators used to convert current dollars to constant 1992 dollars.

SOURCE: Agencies' submissions to Office of Management and Budget, MAX Schedule C; agency budget justification documents; and supplemental data obtained from the agencies' budget offices.

Table 26a. Federal budget authority for basic research, by budget function: fiscal years 1978-83

Budget function	1978	1979	1980	1981	1982	1983
	[In millions of dollars]					
Total.....	3,665	4,108	4,716	5,107	5,305	6,247
Health.....	1,246	1,579	1,761	1,951	1,953	2,475
General science.....	962	1,026	1,152	1,256	1,296	1,439
Space research and technology.....	412	440	482	445	434	501
National defense.....	320	365	552	610	696	788
Energy.....	157	172	200	220	260	320
Agriculture.....	197	222	246	281	295	326
Natural resources and environment.....	207	131	136	131	139	156
Transportation.....	70	75	79	89	102	117
Education, training, employment, and social services.....	57	59	61	66	78	70
Commerce and housing credit.....	9	10	15	17	17	19
Veterans benefits and services.....	9	10	14	15	13	14
Administration of justice.....	10	10	9	5	4	4
Community and regional development.....	8	8	8	5	7	6
General government.....	0	*	*	3	2	3
International affairs.....	*	0	0	12	10	10
Income security.....	2	1	1	3	0	0
	[In millions of constant FY 1992 dollars]					
Total.....	7,288	7,540	7,946	7,838	7,605	8,560
Health.....	2,478	2,898	2,967	2,994	2,800	3,391
General science.....	1,913	1,883	1,941	1,928	1,858	1,972
Space research and technology.....	819	808	812	683	622	686
National defense.....	636	670	930	936	998	1,080
Energy.....	312	316	337	338	373	438
Agriculture.....	392	407	414	431	423	447
Natural resources and environment.....	412	240	229	201	199	214
Transportation.....	139	138	133	137	146	160
Education, training, employment, and social services.....	113	108	103	101	112	96
Commerce and housing credit.....	18	18	25	26	24	26
Veterans benefits and services.....	18	18	24	23	19	19
Administration of justice.....	20	18	15	8	6	5
Community and regional development.....	16	15	13	8	10	8
General government.....	0	*	*	5	3	4
International affairs.....	*	0	0	18	14	14
Income security.....	4	2	2	5	0	0

* = Less than \$500,000.

NOTES: Because of rounding, components may not add to the totals shown. GDP implicit price deflators used to convert current dollars to constant 1992 dollars.

SOURCE: Agencies' submissions to Office of Management and Budget, Circular No. A-11, Exhibit 44A, "Research and Development Activities"; agency budget justification documents; and supplemental data obtained from the agencies' budget offices.

Table 26b. Budget authority for basic research, by budget function: fiscal years 1984-89

Budget function	1984	1985	1986	1987	1988	1989
[In millions of dollars]						
Total.....	7,072	7,810	8,193	9,021	9,553	10,648
Health.....	2,813	3,243	3,324	3,851	4,087	4,413
General science.....	1,606	1,779	1,795	1,942	2,061	2,265
Space research and technology.....	646	498	737	843	944	1,099
National defense.....	845	856	960	900	905	965
Energy.....	365	428	456	511	571	703
Agriculture.....	353	406	390	397	428	433
Natural resources and environment.....	192	206	204	206	210	331
Transportation.....	125	255	184	231	197	287
Education, training, employment, and social services.....	77	86	83	78	83	92
Commerce and housing credit.....	20	23	26	26	28	29
Veterans benefits and services.....	15	15	15	17	17	16
Administration of justice.....	5	4	5	8	8	7
Community and regional development.....	5	6	6	4	7	3
General government.....	3	4	5	4	5	3
International affairs.....	3	4	5	3	3	3
Income security.....	0	0	0	0	0	0
[In millions of constant FY 1992 dollars]						
Total.....	9,332	9,960	10,164	10,877	11,133	11,905
Health.....	3,712	4,136	4,124	4,643	4,763	4,934
General science.....	2,119	2,269	2,227	2,341	2,402	2,532
Space research and technology.....	852	635	914	1,016	1,100	1,229
National defense.....	1,115	1,092	1,191	1,085	1,055	1,079
Energy.....	482	546	566	616	665	786
Agriculture.....	466	518	484	479	499	484
Natural resources and environment.....	253	263	253	248	245	370
Transportation.....	165	325	228	279	230	321
Education, training, employment, and social services.....	102	110	103	94	97	103
Commerce and housing credit.....	26	29	32	31	33	32
Veterans benefits and services.....	20	19	19	20	20	18
Administration of justice.....	7	5	6	10	9	8
Community and regional development.....	7	8	7	5	8	3
General government.....	4	5	6	5	6	3
International affairs.....	4	5	6	4	3	3
Income security.....	0	0	0	0	0	0

NOTES: Because of rounding, components may not add to the totals shown. GDP implicit price deflators used to convert current dollars to constant 1992 dollars.

SOURCE: Agencies' submissions to Office of Management and Budget, Circular No. A-11, Exhibit 44A, "Research and Development Activities"; agency budget justification documents; and supplemental data obtained from the agencies' budget offices.

Table 26c. Federal budget authority for basic research, by budget function: fiscal years 1990-95

Budget function	1990	1991	1992	1993	1994	1995
[In millions of dollars]						
Total.....	11,288	12,405	12,973	13,440	13,552	13,772
Health.....	4,661	5,021	5,506	5,700	5,889	6,068
General science.....	2,306	2,526	2,532	2,553	2,542	2,622
Space research and technology.....	1,389	1,479	1,499	1,588	1,796	1,614
National defense.....	964	1,188	1,147	1,323	1,174	1,181
Energy.....	761	878	921	917	921	930
Agriculture.....	456	486	528	553	567	565
Natural resources and environment.....	336	389	383	376	224	187
Transportation.....	242	246	266	238	220	389
Education, training, employment, and social services.....	106	115	118	121	145	153
Commerce and housing credit.....	31	39	35	34	38	35
Veterans benefits and services.....	16	16	16	16	16	16
Administration of justice.....	9	6	5	5	5	9
Community and regional development.....	3	10	11	10	9	3
General government.....	3	0	0	0	0	0
International affairs.....	4	6	6	8	6	0
Income security.....	0	0	0	0	0	0
[In millions of constant FY 1992 dollars]						
Total.....	12,118	12,769	12,973	13,094	12,892	12,793
Health.....	5,004	5,168	5,506	5,553	5,602	5,637
General science.....	2,476	2,600	2,532	2,487	2,418	2,436
Space research and technology.....	1,491	1,522	1,499	1,547	1,709	1,500
National defense.....	1,035	1,223	1,147	1,289	1,117	1,097
Energy.....	817	904	921	893	876	864
Agriculture.....	490	500	528	539	539	525
Natural resources and environment.....	361	400	383	366	213	173
Transportation.....	260	253	266	232	209	362
Education, training, employment, and social services.....	114	118	118	118	138	142
Commerce and housing credit.....	33	40	35	33	36	32
Veterans benefits and services.....	17	16	16	15	16	15
Administration of justice.....	10	6	5	4	5	8
Community and regional development.....	3	10	11	10	8	3
General government.....	3	0	0	0	0	0
International affairs.....	4	6	6	8	6	0
Income security.....	0	0	0	0	0	0

NOTES: Because of rounding, components may not add to the totals shown. GDP implicit price deflators used to convert current dollars to constant 1992 dollars.

SOURCE: Agencies' submissions to Office of Management and Budget, MAX Schedule C; agency budget justification documents; and supplemental data obtained from the agencies' budget offices.

Table 26d. Federal budget authority for basic research, by budget function:
fiscal years 1996-2000

Budget function	1996	1997	1998	1999 preliminary	2000 proposed
[In millions of dollars]					
Total.....	14,442	14,961	15,523	17,287	18,101
Health.....	6,395	6,852	7,356	8,429	8,590
General science ¹	2,662	2,753	4,121	4,471	4,710
Space research and technology	1,685	1,653	1,610	1,719	1,841
National defense.....	1,165	1,090	1,067	1,158	1,152
Energy ¹	1,182	1,288	34	36	46
Agriculture.....	547	548	571	657	736
Natural resources and environment.....	147	153	145	169	175
Transportation.....	456	420	411	438	634
Education, training, employment, and social services.....	140	142	133	135	144
Commerce and housing credit.....	37	34	35	36	38
Veterans benefits and services.....	13	14	23	20	19
Administration of justice.....	12	13	16	18	15
Community and regional development.....	0	0	0	0	0
General government.....	0	0	0	0	0
International affairs.....	2	2	1	1	1
Income security.....	0	0	0	0	0
[In millions of constant FY 1992 dollars]					
Total.....	13,158	13,378	13,717	15,079	15,480
Health.....	5,826	6,128	6,500	7,353	7,346
General science ¹	2,425	2,462	3,641	3,900	4,028
Space research and technology	1,535	1,478	1,423	1,499	1,575
National defense.....	1,061	975	943	1,010	985
Energy ¹	1,077	1,152	30	32	39
Agriculture.....	498	490	504	573	629
Natural resources and environment.....	134	137	128	147	149
Transportation.....	415	375	363	382	542
Education, training, employment, and social services.....	128	127	118	118	123
Commerce and housing credit.....	34	30	31	31	33
Veterans benefits and services.....	12	13	21	17	16
Administration of justice.....	11	12	14	16	13
Community and regional development.....	0	0	0	0	0
General government.....	0	0	0	0	0
International affairs.....	2	2	1	1	1
Income security.....	0	0	0	0	0

¹Beginning in FY 1998, a number of DOE programs were reclassified from energy (270) to general science (251).

NOTES: Data for 1990-98 are actual budget authority. Data for 1999 are preliminary estimates, and data for 2000 are proposed based on the fiscal year 2000 budget. Because of rounding, components may not add to the totals shown. GDP implicit price deflators used to convert current dollars to constant 1992 dollars.

SOURCE: Agencies' submissions to Office of Management and Budget, MAX Schedule C; agency budget justification documents; and supplemental data obtained from the agencies' budget offices.

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